



DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

[Docket No. FWS–R2–ES–2013–0083; 4500030113]

RIN 1018–AY55

Endangered and Threatened Wildlife and Plants; Endangered Species Status for the Sharpnose Shiner and Smalleye Shiner

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Proposed rule.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), propose to list the sharpnose shiner (*Notropis oxyrhynchus*) and smalleye shiner (*N. buccula*), two fish species from Texas, as endangered species under the Endangered Species Act of 1973, as amended (Act). If we finalize this rule as proposed, it would add these species to the List of Endangered and Threatened Wildlife and extend the Act's protections to these species.

DATES:

Written comments: We will accept comments received or postmarked on or before [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Comments submitted electronically using the Federal eRulemaking Portal (see **ADDRESSES** section, below) must be received by 11:59 p.m. Eastern Time on the closing date.

Public informational session and public hearing: We will hold a public hearing on September 4, 2013. The public information session will begin at 5:00 p.m., and the public hearing will begin at 6:30 p.m. and end at 8:00 p.m. Central Time.

ADDRESSES:

Written comments: You may submit comments by one of the following methods:

(1) *Electronically:* Go to the Federal eRulemaking Portal:

<http://www.regulations.gov>. In the Search box, enter FWS–R2–ES–2013–0083, which is the docket number for this rulemaking. Then click on the Search button. When you have located this proposed rule, you may submit a comment by clicking on “Comment Now!”

(2) *By hard copy:* Submit by U.S. mail or hand-delivery to: Public Comments Processing, Attn: FWS–R2–ES–2013–0083; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, MS 2042–PDM; Arlington, VA 22203.

We request that you send comments **only** by the methods described above. We will post all comments on <http://www.regulations.gov> under Docket Number FWS–R2–ES–2013–0083. This generally means that we will post any personal information you provide us (see the **Information Requested** section below for more information).

Public informational session and public hearing: The public informational session and hearing will be held in the Upstairs Conference Room at the Abilene Civic Center, 1100 North 6th Street, Abilene, Texas.

FOR FURTHER INFORMATION CONTACT: Erik Orsak, Acting Field Supervisor, U.S. Fish and Wildlife Service, Arlington, Texas, Ecological Services Field Office, 2005 NE Green Oaks Blvd., Suite 140, Arlington, TX 76006; by telephone 817–277–1100; or by facsimile 817–277–1129. Persons who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 800–877–8339.

SUPPLEMENTARY INFORMATION:

Executive Summary

Why we need to publish a rule. Under the Act, if a species is determined to be an endangered or threatened species throughout all or a significant portion of its range, we are required to promptly publish a proposal in the **Federal Register** and make a

determination on our proposal within 1 year. Critical habitat shall be designated, to the maximum extent prudent and determinable, for any species determined to be an endangered or threatened species under the Act. Listing a species as an endangered or threatened species and designations and revisions of critical habitat can only be completed by issuing a rule. Elsewhere in today's **Federal Register** (and available online at www.regulations.gov at Docket Number FWS-R2-ES-2013-0083), we propose to designate critical habitat for the sharpnose shiner (*Notropis oxyrhynchus*) and smalleye shiner (*N. buccula*) under the Act.

This rule consists of a proposed rule to list the sharpnose shiner and smalleye shiner as endangered species. The sharpnose shiner and smalleye shiner are currently candidate species for which we have on file sufficient information on biological vulnerability and threats to support preparation of a listing proposal, but for which development of a listing regulation has been precluded by other higher priority listing activities. This proposed rule reassesses all available information regarding status of and threats to the sharpnose shiner and smalleye shiner.

The basis for our action. Under the Act, we can determine if a species is in danger of extinction throughout all or a significant portion of its range now (endangered) or likely to become endangered in the foreseeable future (threatened). As part of our analysis we consider whether it is endangered or threatened because of any five factors affecting its continued existence: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational,

scientific, or educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; or (E) other natural or manmade factors affecting its continued existence. We have determined that habitat loss and modification due to river fragmentation and decreased river flow resulting mainly from reservoir impoundments and drought are primary threats to the species.

We will seek peer review. We are seeking comments from knowledgeable individuals with scientific expertise to review our analysis of the best available science and application of that science and to provide any additional scientific information to improve this proposed rule. Because we will consider all comments and information we receive during the comment period, our final determinations may differ from this proposal.

Information Requested

Public Comments

We intend that any final action resulting from this proposed rule will be based on the best scientific and commercial data available and be as accurate and as effective as possible. Therefore, we request comments or information from other concerned governmental agencies, Native American tribes, the scientific community, industry, or any other interested parties concerning this proposed rule. We particularly seek comments concerning:

(1) The sharpnose and smalleye shiners' biology, range, and population trends, including:

- (a) Biological or ecological requirements of these species, including habitat requirements for feeding, breeding, and sheltering;
- (b) Genetics and taxonomy;
- (c) Historical and current range, including distribution patterns;
- (d) Historical and current population levels, and current and projected trends; and
- (e) Past and ongoing conservation measures for these species, their habitat, or both.

(2) Factors that that may affect the continued existence of the species, which may include habitat modification or destruction, overutilization, disease, predation, the inadequacy of existing regulatory mechanisms, or other natural or manmade factors.

(3) Biological, commercial trade, or other relevant data concerning any threats (or lack thereof) to this species and existing regulations that may be addressing those threats.

(4) Additional information concerning the historical and current status, range, distribution, and population size of this species, including the locations of any additional populations of this species.

(5) Information on the projected and reasonably likely impacts of climate change on sharpnose and smalleye shiners.

(6) The relationship between groundwater withdrawal and the reduction of surface water flow in areas occupied by sharpnose and smalleye shiners.

(7) The relationship between saltcedar encroachment and the reduction of surface water flow.

(8) The causation of toxic golden algal blooms and their potential effect on sharpnose and smalleye shiners.

(9) Sources of surface water contamination, particularly petroleum products, in the upper Brazos River basin.

(10) Information regarding future reservoir impoundments (and other fish barrier construction) within the upper Brazos River basin and their potential effects on surface water flows and fish migration within habitat occupied by these species.

Please include sufficient information with your submission (such as scientific journal articles or other publications) to allow us to verify any scientific or commercial information you include.

Please note that submissions merely stating support for or opposition to the action under consideration without providing supporting information, although noted, will not be considered in making a determination, as section 4(b)(1)(A) of the Act (16 U.S.C. 1531 *et seq.*) directs that determinations as to whether any species is an endangered or threatened species must be made “solely on the basis of the best scientific and commercial data available.”

You may submit your comments and materials concerning this proposed rule by one of the methods listed in the **ADDRESSES** section. We request that you send comments **only** by the methods described in the **ADDRESSES** section.

If you submit information via <http://www.regulations.gov>, your entire submission—including any personal identifying information—will be posted on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on <http://www.regulations.gov>.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on <http://www.regulations.gov> at Docket No. FWS–R2–ES–2013–0083, or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Arlington, Texas, Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

The June 2013 Sharpnose Shiner and Smalleye Shiner Species Status Assessment Report (SSA Report; Service 2013, entire; see **Status Assessment for the Sharpnose Shiner and Smalleye Shiner** section, below), as well as comments and materials we receive and other supporting documentation we used in preparing this proposed rule, will be available for public inspection on <http://www.regulations.gov> at Docket Number FWS–R2–ES–2013–0083 or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Arlington, Texas, Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Public Hearing

Section 4(b)(5) of the Act provides for one or more public hearings on this proposal, if requested. We will hold a public hearing on Wednesday, September 4, 2013. The public information session will begin at 5:00 p.m., and the public hearing will begin at 6:30 p.m. and end at 8:00 p.m. Central Time. The public informational session and hearing will be held in the Upstairs Conference Room at Abilene Civic Center, 1100 North 6th Street, Abilene, Texas. People needing reasonable accommodation in order to attend and participate in the public hearing should contact Erik Orsak, Field Supervisor, Arlington, Texas, Ecological Services Office, as soon as possible (see **FOR FURTHER INFORMATION CONTACT**).

Peer Review

In accordance with our joint policy on peer review published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of five appropriate and independent specialists regarding this proposed rule. The purpose of peer review is to ensure that our listing determination is based on scientifically sound data, assumptions, and analyses. The peer reviewers have expertise in the biology and ecology of riverine fishes and are currently reviewing the species status report, which will inform our final determination. We will invite comment from the peer reviewers during this public comment period.

We will consider all comments and information we receive during this comment period on this proposed rule during our preparation of a final determination. Accordingly, the final decision may differ from this proposal.

Previous Federal Actions

On June 13, 2002, the sharpnose shiner (*Notropis oxyrhynchus*) and smalleye shiner (*N. buccula*) were made candidates for listing (67 FR 40657) under the Act. On May 11, 2004, we received a petition to list the sharpnose shiner and smalleye shiner, which were already on the candidate list; we published our petition finding on May 11, 2005 (70 FR 24899). Because the sharpnose shiner and smalleye shiner were previously identified through our candidate assessment process, the species had already received the equivalent of a substantial 90-day finding and a warranted, but precluded, 12-month

finding (67 FR 40657, June 13, 2002). Through the annual candidate review process (69 FR 24876, May 4, 2004; 70 FR 24870, May 11, 2005; 71 FR 53756, September 12, 2006; 72 FR 69034, December 6, 2007; 73 FR 75176, December 10, 2008; 74 FR 57804, November 9, 2009; 75 FR 69222, November 10, 2010; 76 FR 66370, October 26, 2011; 77 FR 69994, November 21, 2012), the Service continued to solicit information from the public regarding these species.

Status Assessment for the Sharpnose Shiner and Smalleye Shiner

Introduction

The June 2013 SSA Report (Service 2013, entire; available online at www.regulations.gov under Docket Number FWS–R2–ES–2013–0083), provides a thorough assessment of sharpnose shiner and smalleye shiner biology and natural history, and assesses demographic risks, threats, and limiting factors in the context of determining viability and risk of extinction for the species. In the SSA Report, we compile biological data and a description of past, present, and likely future threats (causes and effects) facing the sharpnose shiner and smalleye shiner. Because data in these areas of science are limited, some uncertainties are associated with this assessment. Where we have substantial uncertainty, we have attempted to make our necessary assumptions explicit in the SSA Report. We base our assumptions in these areas on the best available scientific and commercial data. Importantly, the SSA Report does not represent a decision by the Service on whether these taxa should be proposed for listing as endangered or threatened

species under the Act. The SSA Report does, however, provide the scientific basis that informs our decisions, which involve the further application of standards within the Act and its regulations and policies.

Summary of Biological Status and Threats

Our June 2013 SSA Report documents the results of the comprehensive biological status review for the sharpnose shiner and smalleye shiner, and provides a thorough account of the species' overall viability and, conversely, extinction risk (Service 2013, entire). The following is a summary of the results and conclusions from the SSA Report.

The sharpnose shiner and smalleye shiner are small minnows native to arid prairie streams of Texas originating from the Brazos River. The naturally occurring historical distribution the sharpnose shiner included the Brazos River, Colorado River, and Wichita River in Texas, while the naturally occurring historical distribution of the smalleye shiner included only the Brazos River.

In conducting our status assessment, we first considered what each of the two shiners need to ensure viability. We generally define viability as the ability of the species to persist over the long term and, conversely, to avoid extinction. We then evaluated whether those needs currently exist and the repercussions to the species when those needs are missing, diminished, or inaccessible. We next considered the factors that are causing the species to lack what it needs, including historical, current, and future factors. Finally,

considering the information reviewed, we evaluated the current status and future viability of the species in terms of resiliency, redundancy, and representation. Resiliency is the ability of the species to withstand stochastic events and, in the case of the shiners, is best measured by the extent of suitable habitat in terms of stream length. Redundancy is the ability of a species to withstand catastrophic events by spreading the risk and can be measured through the duplication and distribution of resilient populations across its range. Representation is the ability of a species to adapt to changing environmental conditions and can be measured by the breadth of genetic diversity within and among populations and the ecological diversity of populations across the species' range. In the case of the shiners, we evaluate representation based on the extent of the geographical range and the variability of habitat characteristics within their range as indicators of genetic and ecological diversity.

Our assessment found that both species of shiners have an overall low viability (or low probability of persistence) in the near term (over about the next 10 years) and a decreasing viability (increasing risk of extinction) in the long-term future (over the next 11 to 50 years). For the shiners to be considered viable, individual fish need specific vital resources for survival and completion of their life cycles. Both species need wide, shallow, flowing waters generally less than half a meter deep (1.6 ft) with sandy substrates, which are found in mainstem rivers in the arid prairie region of Texas. The most important part of their life history is their reproductive strategies. Both species broadcast-spawn eggs and sperm into open water asynchronously (fish not spawning at the same time) from April through September during periods of low flow and

synchronously (many fish spawning at the same time) during periods of elevated streamflow. Their eggs are semi-buoyant and remain suspended 1 or 2 days in flowing water as they develop into larvae. Larval fish remain suspended in the flowing water column an additional 2 to 3 days as they develop into free-swimming juvenile fish. In the absence of sufficient water velocities, suspended eggs and larvae sink into the substrate and subsequently die.

To sustain populations of the shiners, experimental analysis suggests estimated mean spawning season river flows of 2.61 cubic meters per second (m^3s^{-1}) (92 cubic feet per second (cfs)) and $6.43 \text{ m}^3\text{s}^{-1}$ (227 cfs) are required for the sharpnose and smalleye shiners, respectively. It is also estimated that populations of shiners require approximately 275 kilometers (km) (171 miles (mi)) of unobstructed, flowing water during the breeding season to support a successfully reproductive population. This length of stream allows the eggs and larvae to remain suspended in the water column and survive until they mature sufficiently to swim on their own. In addition, these fish only naturally live for 1 or 2 years, making the populations particularly vulnerable when the necessary streamflow conditions for reproduction are lacking for more than one season. Across their range, these species also need unobstructed river lengths to allow for upstream and downstream movements to survive seasons with poor environmental conditions in certain river reaches. Unobstructed river reaches allow some fish to survive and recolonize degraded reaches when conditions improve.

The current conditions of both species indicate that they do not have the necessary resources for persistence in the immediate future. Both species have experienced dramatic range reduction, with both fish having lost at least half of their historical range. Both species are now restricted to one population in the upper Brazos River basin. As a result, sharpnose and smalleye shiners currently lack redundancy, which is significantly reducing the viability of these species as a whole. In addition, streamflows within their current extant range are insufficient during some years to support successful reproduction, such as occurred in 2011. These fish have been resilient to past stressors that occur over short durations, and their populations appear capable of recovering naturally even when an entire year's reproductive effort is lost. However, without human intervention, given their short lifespan and restricted range, stressors that persist for two or more reproductive seasons (such as a severe drought) severely limit these species' current viability, placing them at a high risk of extinction now.

The two primary factors affecting the current and future conditions of these shiners are river fragmentation by impoundments and alterations of the natural streamflow regime (by impoundments, drought, groundwater withdrawal, and saltcedar encroachment) within their range. Other secondary factors, such as water quality degradation and commercial harvesting for fish bait, likely also impact these species but to a lesser degree. These multiple factors are not acting independently, but are acting together as different sources (or causes), which can result in cumulative effects to lower the overall viability of the species.

Fish barriers such as impoundments are currently restricting the upstream and downstream movement of migrating fish and prevent survival of the semi-buoyant eggs and larvae of sharpnose and shinneloe shiners. This is because the eggs and larvae cannot remain suspended in the water column under non-flowing conditions in reservoirs or if streamflows cease. Of the area once occupied by one or both species in the Brazos, Colorado, and Wichita Rivers, only two contiguous river segments remain with unobstructed lengths (without dams) greater than 275 km (171 mi): the upper Brazos River (where the fish are extant) and the lower Brazos River (where the fish are functionally extirpated). The effects of habitat fragmentation have occurred and continue to occur throughout the range of both species and are expected to increase if proposed new reservoirs are constructed. Habitat fragmentation is affecting both species at the individual, population, and species levels, and puts the species at a high risk of extinction currently and increasingly so into the long-term future.

The historical ranges of both species have been severely fragmented, primarily by large reservoir impoundments, resulting in the isolation of one population of each species in the upper Brazos River basin. The construction of Possum Kingdom Reservoir in 1941, for example, eliminated the ability of these species to migrate downstream to wetter areas when the upper Brazos River experiences drought. There is also a number of existing in-channel structures (primarily pipeline crossings and low-water crossings) within the occupied range of these species, some of which are known to restrict fish passage during periods of low flow. Species extirpation has already occurred in areas

where river segments have been fragmented and reduced to less than 275 km (171 mi) in length.

In addition, future fragmentation of the remaining occupied habitat of the upper Brazos River by new impoundments would decrease the contiguous, unfragmented river habitat required by these species for successful reproduction. Texas does not have adequate water supplies to meet current or projected water demand in the upper Brazos River region, and additional reservoir construction is considered imminent. Possible new impoundments include the 2012 State Water Plan's proposed Post Reservoir in Garza County, the Double Mountain Fork Reservoir (East and West) in Stonewall County, and the South Bend Reservoir in Young County. Because extirpation of these species is expected to occur in occupied river fragments reduced to less than 275 km (171 miles) in length, any new structures further fragmenting stream habitats significantly increase the likelihood of extinction for both species.

The natural flow regime is considered one of the most important factors to which native riverine species, like the shiners, become adapted, and alterations to it can have severe impacts on fishes. A majority of sharpnose and smalleye shiner reproductive output occurs through synchronized spawning during periods of elevated flow associated with storms, although successful reproduction is also possible during periods of low to moderate flow. When streamflows are insufficient, the fish cannot successfully spawn and reproduce. There are several environmental changes that are a source of declining streamflows within the range of the shiners. Downstream of reservoirs, streamflows are

lowered and stabilized, which has reduced or, in some areas, eliminated successful reproduction in these species. In addition, groundwater withdrawal and depletion will reduce or eliminate the remaining springs and seeps of the Brazos River basin, which will lower river flow. Drought is another obvious source of impact that negatively affects streamflow and has severe impacts on sharpnose and shallege shiner reproduction. Severe droughts in this region are expected to become more common as a result of ongoing climate change. Finally, saltcedar encroachment is another source of environmental change that not only is affecting streamflows but also restricts channel width and increases channel depth. These stream channel changes reduce the amount of wide channels and shallow waters preferred by sharpnose and shallege shiners. Flow reduction and an altered flow regime have occurred and continue to occur throughout the range of these species and are expected to impact both species at the individual, population, and species levels.

Within the reduced range of these species in the upper Brazos River basin, there are currently at least 13 impoundments or other structures affecting (to varying degrees) the amount of stream flow within the occupied range of these species. These reservoirs serve as water supplies for various consumptive water uses and reduce downstream flows available for the fishes. Because the current impoundments restrict stream flow below the minimum levels required for both species, we expect these impoundments to impact both species at the individual, population, and species levels.

Additional future impoundments, reservoir augmentations, and water diversions are under consideration for construction within the upper Brazos River, which would further reduce flows and fragment remaining habitat. The construction of at least some of these structures to meet future water demand in the region is highly likely to occur within the next 50 years. These future impoundments, reservoir augmentations, and water diversions will further increase the likelihood of extinction for both species.

Besides impoundments and diversions of water from reservoirs, there are other sources causing reduced stream flows in the upper Brazos River basin. One such source is climate change, which is projected to result in warmer temperatures and drier conditions in the upper Brazos River in the future. This trend is already becoming apparent and exacerbates the likelihood of species extinction from loss of river flow. Reductions to river flow and river drying are also expected to increase as groundwater withdrawals negatively impact already reduced spring flows. Saltcedar encroachment also intensifies evaporative water loss along occupied river segments. There are several existing efforts addressing threats to natural flow regimes, including the Texas Environmental Flows Program, saltcedar control programs, and groundwater conservation districts. However, these programs and conservation efforts have not alleviated ongoing and future threats negatively affecting water flow in the upper Brazos River.

The effects of reduced stream flows on the shiners were dramatically demonstrated during the summer spawning season of 2011. During 2011, Texas

experienced the worst 1-year drought on record, and the upper Brazos River went dry. Some individual fish presumably found refuge from the drying river in Possum Kingdom Lake downstream. However, the non-flowing conditions in the river made reproduction impossible, and any shiners in the lake would have faced increased predation pressure from large, lake-adapted, piscivorous fish. Fearing possible extinction of these species, State fish biologists from Texas captured sharpnose and smalleye shiners from isolated pools in 2011, prior to their complete drying, and maintained a small population in captivity until they were released back into the lower Brazos River the following year. During the 2011 drought, no sharpnose shiner or smalleye shiner reproduction was documented. Given their short lifespan (they typically live only two reproductive seasons), a similar drought in 2012 would have likely led to extinction of both species. However, 2012 fish survey results of the upper Brazos River indicated drought conditions were not as intense as those in 2011, and sharpnose and smalleye shiners persisted.

As remaining habitat of the shiners becomes more fragmented and drought conditions intensify, the single remaining population of sharpnose shiners and smalleye shiners will become more geographically restricted, further reducing the viability of the species into the future. Under these conditions, the severity of secondary threats, such as water quality degradation from pollution and golden algal blooms, and legally permitted commercial bait fish harvesting, will have a larger impact on the species and a single pollutant discharge, golden algal bloom, or commercial harvesting or other local event will severely increase the risk of extinction of both species.

The shiners currently have limited viability and increased vulnerability to extinction because of their stringent life-history requirement of long, flowing rivers to complete their reproductive cycle. With a short lifespan allowing only one or two breeding seasons and the need for unobstructed river reaches greater than 275 km (171 mi) in length containing average flows greater than $2.61 \text{ m}^3\text{s}^{-1}$ (92 cfs) and $6.43 \text{ m}^3\text{s}^{-1}$ (227 cfs) (for the sharpnose and smalleye shiners, respectively) during the summer, both species are at a high risk of extirpation when rivers are fragmented by fish barriers and flows are reduced from human use and drought-enhanced water shortages. These conditions have already resulted in a significant range reduction and isolation of the one remaining population of both fish into the upper Brazos River. The extant population of each shiner species is located in a contiguous stretch of river long enough to support reproduction, is of adequate size, and is generally considered resilient to local or short-term environmental changes. However, with only one location, the species lack any redundancy, and it is presumed these species lack the genetic and ecological representation to adapt to ongoing threats. Given the short lifespan and restricted range of these species, without human intervention, lack of adequate flows (due to drought and other stressors) persisting for two or more consecutive reproductive seasons would likely lead to species extinction. With human water use and ongoing regional drought, the probability of this happening in the near term (about the next 10 years) is high, putting the species at a high risk of extinction. Over the longer term (the next 11 to 50 years), these conditions will only continue to deteriorate as human water use continues, including possible construction of new dams within the extant range, and as there are enhanced chances of drought due to ongoing climate change. In conclusion, the current

condition of both species is at a low viability (low probability of persistence), and their viability is only expected to decline into the future.

Determination

Standard for Review

Section 4 of the Act, and its implementing regulations at 50 CFR part 424, set forth the procedures for adding species to the Federal Lists of Endangered and Threatened Wildlife and Plants. Under section 4(b)(1)(a), the Secretary is to make endangered or threatened determinations required by subsection 4(a)(1) solely on the basis of the best scientific and commercial data available to her after conducting a review of the status of the species and after taking into account conservation efforts by States or foreign nations. The standards for determining whether a species is endangered or threatened are provided in section 3 of the Act. An endangered species is any species that is “in danger of extinction throughout all or a significant portion of its range.” A threatened species is any species that is “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” Under section 4(a)(1) of the Act, in reviewing the status of the species to determine if it meets the definitions of endangered or threatened, we determine whether any species is an endangered species or a threatened species because of any of the following five factors: (A) The present or threatened destruction, modification, or curtailment of its habitat or range; (B) overutilization for commercial, recreational, scientific, or educational

purposes; (C) disease or predation; (D) the inadequacy of existing regulatory mechanisms; and (E) other natural or manmade factors affecting its continued existence.

Proposed Listing Status Determination

Based on our review of the best available scientific and commercial information, we conclude that the sharpnose shiner and smalleye shiner are currently in danger of extinction throughout all of their range, and, therefore, both meet the definition of an endangered species. This finding, explained below, is based on our conclusions that these species exhibit low viability, as characterized by not having the resiliency to overcome persistent threats and insufficient population redundancy. We found the sharpnose shiner and smalleye shiner are in danger of extinction now, and the situation will not improve without significant conservation intervention. We, therefore, find that the sharpnose shiner and smalleye shiner warrant listing as endangered species.

On the basis of our biological review documented in the June 2013 SSA Report, we found that the sharpnose shiner and smalleye shiner are vulnerable to extinction due to their reduced ranges and their highly specific reproductive strategies. These species are currently restricted to the upper Brazos River and its major tributaries, which represents a greater than 70 percent reduction in range for the sharpnose shiner and a greater than 50 percent range reduction for the smalleye shiner. The occupied river segments of the upper Brazos River currently retain the necessary length (greater than 275 km (171 miles)) to support successful broadcast-spawning reproduction in these

species. However, these river segments have naturally occurring periods of low flow, periods completely lacking flow, and periods of complete drying—often during the dry summer months, which is also when these species spawn. The eggs and larvae of these species require flowing water of sufficient velocity to keep their eggs and larvae afloat and alive. During periods of insufficient river flow, reproduction is not successful and no young are produced.

Our review found the primary factors leading to a high risk of extinction for these fishes include habitat loss and modification due to river fragmentation and decreased river flow, resulting mainly from reservoir impoundments. Drought, exacerbated by climate change, and groundwater withdrawals also act as sources to reduce stream flows and modify stream habitats. Fragmentation due to reservoir construction has resulted in a substantially reduced range with only one isolated population of each species in the upper Brazos River. With only one isolated population remaining, these species have no redundancy, reduced resiliency due to the inability to disperse downstream, and limited representation. This situation puts the species in danger of extinction from only one adverse event (such as insufficient flow rates for 2 consecutive years). Secondary causes of habitat modifications include water quality degradation and saltcedar encroachment that alters stream channels. As population sizes decrease, localized concerns, such as commercial harvesting of individuals, also increases the risk of extinction.

We evaluated whether the sharpnose shiner and smalleye shiner are in danger of extinction now (i.e., an endangered species) or are likely to become in danger of

extinction in the foreseeable future (i.e., a threatened species). The foreseeable future refers to the extent to which the Secretary can reasonably rely on predictions about the future in making determinations about the conservation status of the species. A key statutory difference between an endangered species and a threatened species is the timing of when a species may be in danger of extinction, either now (endangered species) or in the foreseeable future (threatened species). Because of the fact-specific nature of listing determinations, there is no single metric for determining if a species is presently “in danger of extinction.” In the case of the sharpnose shiner and smalleye shiner, the best available information indicates the severe range reduction and isolation of these species to a single population in the upper Brazos River places these species in danger of extinction now, and the situation is exacerbated by the ongoing and intensifying effects of river fragmentation, climate-change-induced drought, saltcedar encroachment, water quality degradation, and commercial bait harvesting. The current threats affecting these species are expected to continue (or even increase without substantial conservation efforts), causing both species to be in danger of extinction now—as nearly occurred during the drought of 2011. Therefore, because these species have been reduced to less than half of their previously occupied range and because both species are restricted to a single, non-resilient population at a high risk of extinction from a variety of unabated threats, we find both species are in danger of extinction now and meet the definition of an endangered species.

In conclusion, after a review of the best available scientific and commercial information as it relates to the status of the species and the five listing factors, we find the

sharpnose shiner and smalleye shiner are in danger of extinction now. Therefore, we propose to list the sharpnose shiner and smalleye shiner as endangered species in accordance with section 3(6) of the Act.

Under the Act and our implementing regulations, a species may warrant listing if it is endangered or threatened throughout all or a significant portion of its range. The threats to the survival of the sharpnose shiner and smalleye shiner occur throughout these species' ranges and are not restricted to any particular significant portion of those ranges. Accordingly, our assessments and determinations apply to the species throughout their entire ranges.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened species under the Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing results in public awareness and conservation by Federal, State, tribal, and local agencies, private organizations, and individuals. The Act encourages cooperation with the States and requires that recovery actions be carried out for all listed species. The protection required by Federal agencies and the prohibitions against certain activities are discussed, in part, below.

The primary purpose of the Act is the conservation of endangered and threatened species and the ecosystems upon which they depend. The ultimate goal of such conservation efforts is the recovery of these listed species, so that they no longer need the protective measures of the Act. Subsection 4(f) of the Act requires the Service to develop and implement recovery plans for the conservation of endangered and threatened species. The recovery planning process involves the identification of actions that are necessary to halt or reverse the species' decline by addressing the threats to its survival and recovery. The goal of this process is to restore listed species to a point where they are secure, self-sustaining, and functioning components of their ecosystems.

Recovery planning includes the development of a recovery outline shortly after a species is listed, preparation of a draft and final recovery plan, and revisions to the plan as significant new information becomes available. The recovery outline guides the immediate implementation of urgent recovery actions and describes the process to be used to develop a recovery plan. The recovery plan identifies site-specific management actions that will achieve recovery of the species, measurable criteria that determine when a species may be downlisted or delisted, and methods for monitoring recovery progress. Recovery plans also establish a framework for agencies to coordinate their recovery efforts and provide estimates of the cost of implementing recovery tasks. Recovery teams (comprising species experts, Federal and State agencies, nongovernmental organizations, and stakeholders) are often established to develop recovery plans. When completed, the recovery outline, draft recovery plan, and the final recovery plan will be

available on our website (<http://www.fws.gov/endangered>), or from our Arlington, Texas, Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Implementation of recovery actions generally requires the participation of a broad range of partners, including other Federal agencies, States, tribes, nongovernmental organizations, businesses, and private landowners. Examples of recovery actions include habitat restoration (e.g., removal of existing fish barriers), research, captive propagation and reintroduction, and outreach and education. The recovery of many listed species cannot be accomplished solely on Federal lands because their range may not occur primarily or solely on non-Federal lands. To achieve recovery of these species requires cooperative conservation efforts on private, State, and Tribal lands.

If these species are listed, funding for recovery actions will be available from a variety of sources, including Federal budgets, State programs, and cost share grants for non-Federal landowners, the academic community, and nongovernmental organizations. In addition, pursuant to section 6 of the Act, the State of Texas would be eligible for Federal funds to implement management actions that promote the protection and recovery of the sharpnose shiner and smalleye shiner. Information on our grant programs that are available to aid species recovery can be found at: <http://www.fws.gov/grants>.

Although the sharpnose shiner and smalleye shiner are only proposed for listing under the Act at this time, please let us know if you are interested in participating in recovery efforts for this species. Additionally, we invite you to submit any new

information on these species whenever it becomes available and any information you may have for recovery planning purposes (see **FOR FURTHER INFORMATION CONTACT**).

Section 7(a) of the Act requires Federal agencies to evaluate their actions with respect to any species that is proposed or listed as endangered or threatened and with respect to its critical habitat, if any is designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR part 402. Section 7(a)(4) of the Act requires Federal agencies to confer with the Service on any action that is likely to jeopardize the continued existence of a species proposed for listing or result in destruction or adverse modification of proposed critical habitat. If a species is listed subsequently, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service.

Federal agency actions within the species' habitat that may require conference or consultation or both as described in the preceding paragraph may include but are not limited to: Permitting of interbasin water transfers, permitting of large groundwater withdrawal projects, permitting of in-channel mining and dredging, issuance of section 404 Clean Water Act (33 U.S.C. 1251 *et seq.*) permits by the U.S. Army Corps of

Engineers, and construction and maintenance of roads or highways by the Federal Highway Administration.

The Act and its implementing regulations set forth a series of general prohibitions and exceptions that apply to all endangered wildlife. The prohibitions of section 9(a)(2) of the Act, codified at 50 CFR 17.21 for endangered wildlife, in part, make it illegal for any person subject to the jurisdiction of the United States to take (includes harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect; or to attempt any of these), import, export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. Under the Lacey Act (18 U.S.C. 42–43; 16 U.S.C. 3371–3378), it is also illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

We may issue permits to carry out otherwise prohibited activities involving endangered and threatened wildlife species under certain circumstances. Regulations governing permits are codified at 50 CFR 17.22 for endangered species, and at 17.32 for threatened species. With regard to endangered wildlife, a permit must be issued for the following purposes: for scientific purposes, to enhance the propagation or survival of the species, and for incidental take in connection with otherwise lawful activities.

Our policy, as published in the **Federal Register** on July 1, 1994 (59 FR 34272), is to identify to the maximum extent practicable at the time a species is listed, those

activities that would or would not constitute a violation of section 9 of the Act. The intent of this policy is to increase public awareness of the effect of a proposed listing on proposed and ongoing activities within the range of species proposed for listing. The following activities could potentially result in a violation of section 9 of the Act; this list is not comprehensive:

(1) Unauthorized collecting, handling, possessing, selling, delivering, carrying, or transporting of the species, including import or export across State lines and international boundaries, except for properly documented antique specimens of these taxa at least 100 years old, as defined by section 10(h)(1) of the Act.

(2) Unauthorized destruction or alteration of sharpnose and smalleye shiner habitats (e.g., unpermitted in-stream dredging, impoundment, or construction; water diversion or withdrawal; channelization; discharge of fill material) that impairs essential behaviors such as breeding, feeding, or sheltering, or results in killing or injuring sharpnose or smalleye shiners. Such activities could include, but are not limited to, the destruction of upland riparian areas in a manner that it negatively impacts the river ecosystem.

(3) Capture, survey, or collection of specimens of this taxon without a permit from the Service under section 10(a)(1)(A) of the Act.

Questions regarding whether specific activities would constitute a violation of section 9 of the Act should be directed to the Arlington, Texas, Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Required Determinations

Clarity of the Rule

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

- (1) Be logically organized;
- (2) Use the active voice to address readers directly;
- (3) Use clear language rather than jargon;
- (4) Be divided into short sections and sentences; and
- (5) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in the **ADDRESSES** section. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

National Environmental Policy Act (42 U.S.C. 4321 et seq.)

We have determined that environmental assessments and environmental impact statements, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with listing a species as an endangered or threatened species under the Endangered Species Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244).

References

A complete list of references used in support of this proposed rulemaking is available on the Internet at <http://www.regulations.gov> under Docket Number FWS–R2–ES–2013–0083 in the June 2013 Status Assessment Report for the Sharpnose Shiner and Smalleye Shiner (Service 2013, Literature Cited) and upon request from the Arlington, Texas, Ecological Services Field Office (see **FOR FURTHER INFORMATION CONTACT**).

Authors

The primary authors of this document are the staff members of the Arlington, Texas, Ecological Services Field Office.

List of Subjects in 50 CFR Part 17

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

Proposed Regulation Promulgation

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

Authority: 16 U.S.C. 1361–1407; 1531–1544; 4201–4245, unless otherwise noted.

2. In § 17.11(h), add entries for “Shiner, sharpnose” and “Shiner, smalleye” in alphabetical order under FISHES to the List of Endangered and Threatened Wildlife, to read as follows:

§ 17.11 Endangered and threatened wildlife.

* * * * *

(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						

* * * * *

FISHES

* * * * *

Shiner, sharpnose	<i>Notropis oxyrhynchus</i>	U.S. (TX)	Entire	E		NA	NA
Shiner, smalleye	<i>Notropis buccula</i>	U.S. (TX)	Entire	E		NA	NA

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Dated: July 15, 2013

Signed: Daniel M. Ashe

Director, U.S. Fish and Wildlife Service

Billing Code 4310-55

[FR Doc. 2013-18211 Filed 08/05/2013 at 8:45 am; Publication Date:
08/06/2013]